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90-890000603

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Comprehensive Assessment Information Rule

REPORTING FORM

When completed, send this form to:

Document Processing Center
Office of Toxic Substances, TS-790
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460
Attention: CAIR Reporting Office

For Agency Use Only:
Date of Receipt:
Document Control Number:
Docket Number:

		SECTION 1 GENERAL MANUFACTURER, IMPORTER, AND PROCESSOR INFORMATION
PART	A G	ENERAL REPORTING INFORMATION
1.01	Thi	s Comprehensive Assessment Information Rule (CAIR) Reporting Form has been
CBI	com	pleted in response to the <u>Federal Register Notice of <math>[\frac{1}{1}]^{\frac{1}{2}}</math> <math>[\frac{1}{2}]^{\frac{1}{2}}</math> <math>[\frac{1}{2}]^{\frac{1}{2}}</math> year</u>
 [_]	a.	If a Chemical Abstracts Service Number (CAS No.) is provided in the Federal
		Register, list the CAS No $[\overline{O}]\overline{2}\overline{3}\overline{4}\overline{4}\overline{7}\overline{7}\overline{1}-[\overline{G}]\overline{2}-[\overline{F}]$
	b.	If a chemical substance CAS No. is not provided in the <u>Federal Register</u> , list either (i) the chemical name, (ii) the mixture name, or (iii) the trade name of the chemical substance as provided in the <u>Federal Register</u> .
		(i) Chemical name as listed in the rule
		(ii) Name of mixture as listed in the rule
		(iii) Trade name as listed in the rule
	c.	If a chemical category is provided in the Federal Register, report the name of the category as listed in the rule, the chemical substance CAS No. you are reporting on which falls under the listed category, and the chemical name of the substance you are reporting on which falls under the listed category.
		Name of category as listed in the rule
		CAS No. of chemical substance [_]_]_]_]_]_]_]_]_]_]_]_]_]
		Name of chemical substance
1.02		entify your reporting status under CAIR by circling the appropriate response(s).
CBI	Маг	nufacturer
[_]	Imp	oorter 2
	Pro	ocessor
	X/I	e manufacturer reporting for customer who is a processor
	X/I	processor reporting for customer who is a processor
		•
<u></u>	Mar	k (X) this box if you attach a continuation sheet.

1.03	Does the substance you are reporting on have an " $x/p$ " designation associated with it in the above-listed Federal Register Notice?					
CBI	Yes					
(_)	No					
1.04	a. Do you manufacture, import, or process the listed substance and distribute it under a trade name(s) different than that listed in the <u>Federal Register</u> Notice Circle the appropriate response.					
CBI	Yes					
[_]	No					
	b. Check the appropriate box below:					
	[ ] You have chosen to notify your customers of their reporting obligations					
	Provide the trade name(s)					
	You have chosen to report for your customers					
	You have submitted the trade name(s) to EPA one day after the effective date of the rule in the <u>Federal Register</u> Notice under which you are reporting.					
1.05	If you buy a trade name product and are reporting because you were notified of your reporting requirements by your trade name supplier, provide that trade name.					
<u>CBI</u>	Trade name					
[_]	Is the trade name product a mixture? Circle the appropriate response.					
	Yes					
	No					
1.06	Certification The person who is responsible for the completion of this form must sign the certification statement below:					
CBI	"I hereby certify that, to the best of my knowledge and belief, all information entered on this form is complete and accurate."					
	MARX L. ROLLINS 7/17/89					
	NAME SIGNATURE DATE SIGNED					
	CORPULATE HANTH + SAFFTY (508) 795 - 2584 TITLE ROMINUTATION TELEPHONE NO.					
<u></u> 1	Mark (X) this box if you attach a continuation sheet.					
[_]	Mark (X) this box if you attach a continuation sheet.					

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1.07 <u>CBI</u> []	Exemptions From Reporting If you have provided EPA or another Federal agency with the required information on a CAIR Reporting Form for the listed substance within the past 3 years, and this information is current, accurate, and complete for the time period specified in the rule, then sign the certification below. You are required to complete section 1 of this CAIR form and provide any information now required but not previously submitted. Provide a copy of any previous submissions along with your Section 1 submission.					
	"I hereby certify that, to the best of my knowledge and belief, all required information which I have not included in this CAIR Reporting Form has been submitted to EPA within the past 3 years and is current, accurate, and complete for the time period specified in the rule."					
	NAME	SIGNATURE	DATE SIGNED			
	TITLE	TELEPHONE NO	DATE OF PREVIOUS SUBMISSION			
1.08 <u>CBI</u> []	CBI Certification If you have asserted any CBI claims in this report you must certify that the following statements truthfully and accurately apply to all of those confidentiality claims which you have asserted.  "My company has taken measures to protect the confidentiality of the information, and it will continue to take these measures; the information is not, and has not been, reasonably ascertainable by other persons (other than government bodies) by using legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding) without my company's consent; the information is not publicly available elsewhere; and disclosure of the information would cause substantial harm to my company's competitive position."					
	NAME	SIGNATUR	RE DATE SIGNED			
	TITLE	()	NO.			
<u></u> 1	Mark (X) this box if you attach a	continuation sheet.				

PART B CORPORATE DATA				
1.09	Facility Identification			
<u>CBI</u>	Name [N]0]R]T]0]N]_]C]0]M]P]A]N]Y]_]_]_]_]_]_]_]_]_]_]_]_]_] Address [I]_]N]E]W]_]B]0]N]0]]]J]T]E]E]=]_]_]_]_]_]_]_]_]			
	[四]0]正]0]10]10]10]10]10]10]10]10]10]10]10]10]1			
	[ <u>四]五]</u> [ <u>[]]]]]]]]]]]]]][]][]][]][]][]][]][]][]</u>			
	Dun & Bradstreet Number         [0]0]-[7]7]2]-[7]2]3]4]           EPA ID Number         [0]0]7]7]2]6]2]3]4]           Employer ID Number         [1]7]7]7]17]17]17]17]17]17]17]17]17]17]17			
1.10	Company Headquarters Identification			
<u>CBI</u>	Name [N]			
	「			
<u></u>	Mark (X) this box if you attach a continuation sheet.			

1.11	Parent Company Identification
<u>CBI</u>	Name [ ] ] ] ] ] ] ] ] ] ] ] ] ] ] ] ] ] ]
	(_)1_1_1_1_1_1_1_1_1_1_1_1_1_1_1_1_1_1
	[_]_] [_]_]_]_]_]_]_]]]]]]
	Dun & Bradstreet Number
1.12	Technical Contact
<u>CBI</u>	Name [M]ARIK] IRIOI III IN ISI III III III III III III III
	( <u>〒)017171月17171月171</u> 171717171717171717171717
	[MA] [0]][][0]0]0] State
	Telephone Number[ <u>5</u> ] <u>[7]</u> [7][7][7][7][7][7][7][7][7][7][7][7][7][
1.13	This reporting year is from
	Mark (X) this box if you attach a continuation sheet.

1.14	Facility Acquired If you purchased this facility during the reporting year, provide the following information about the seller:
CBI	Name of Seller [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
[_]	Mailing Address [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
	[_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
	[_]_] [_]_]_]_]_][_]_]_]_] State
	Employer ID Number
	Date of Sale
	Contact Person [_]_]_]_]_]_]_]_]_]_]_]_]_]_]
	Telephone Number
1.15	Facility Sold If you sold this facility during the reporting year, provide the following information about the buyer:
CBI	Name of Buyer [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
[_]	Mailing Address [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
	[_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
	[_]_] [_]_]_]_]_]_]-[_]_]_]_]_]
	Employer ID Number
	Date of Purchase
	Contact Person [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
	Telephone Number
[_]	Mark (X) this box if you attach a continuation sheet.

Classification	Quantity (k
Manufactured	
Imported	
Processed (include quantity repackaged)	629
Of that quantity manufactured or imported, report that quantity:	
In storage at the beginning of the reporting year	• •
For on-site use or processing	• •
For direct commercial distribution (including export)	• •
In storage at the end of the reporting year	• •
Of that quantity processed, report that quantity:	•
In storage at the beginning of the reporting year	• •
Processed as a reactant (chemical producer)	• •
Processed as a formulation component (mixture producer)	• •
Processed as an article component (article producer)	• •
Repackaged (including export)	• •
In storage at the end of the reporting year	• •

.17 BI	Mixture If the listed substor a component of a mixture, p chemical. (If the mixture comeach component chemical for all	rovide the position i	s variable, repo	Mailon for each component	
<u>_</u> )	Component Name		Supplier Name	Average % Composition by Weight (specify precision, e.g., 45% ± 0.5%)	
	ISUCYANATE PULYMEN	ASINLAND		50 +0	
	TALC		ASALAND	30 -5	
	TOWER DISSOYANDE		ASHLAND	10 %	
	METITIONE PHENYLENE ISCHANGE	aibumen	ASHLAND	10 -5	
				Total 100%	

2.04	State the quantity of the listed substance that your facility manufactured, imported, or processed during the 3 corporate fiscal years preceding the reporting year in descending order.
CBI	
[_]	Year ending
	Quantity manufactured
	Quantity imported kg
	Quantity processed kg
	Year ending
	Quantity manufactured
	Quantity imported
	Quantity processed
	Quantity processed
	Year ending
	Quantity manufactured 6 k
	Quantity imported k
	Quantity processed k
2.05 CBI	Specify the manner in which you manufactured the listed substance. Circle all appropriate process types.
[_]	Continuous process
	Semicontinuous process
	Batch process
	Batch process
	•

2.06 CBI	Specify the manner in appropriate process ty	which you processed to pes.	ne listed substance.	Circle all
[_]	Continuous process			1
	Semicontinuous process			
	Batch process			3
2.07 CBI	State your facility's substance. (If you ar question.)	name-plate capacity fee a batch manufacture	for manufacturing or per or batch processor,	rocessing the listed do not answer this
(_)	Manufacturing capacity	,		kg/yr
	Processing capacity .		•	
2.08	If you intend to incremanufactured, imported year, estimate the inc	I ar processed at any	, time atter vour curr	ent corporate liscal
CBI	volume.	Manufacturing	Importing	Processing
<u>CBI</u>	volume.	Manufacturing Quantity (kg)	Importing Quantity (kg)	Processing Quantity (kg)
	Amount of increase			
	Amount of increase			
	Amount of increase			
	Amount of increase			
	Amount of increase			
	Amount of increase			
	Amount of increase			
	Amount of increase			
	Amount of increase			
	Amount of increase			

2.09	Of For the three largest volume manufacturing or processing process types involving listed substance, specify the number of days you manufactured or processed the li substance during the reporting year. Also specify the average number of hours per day each process type was operated. (If only one or two operations are involved, list those.)				
CBI			Days/Year	Average Hours/Day	
	Process Type #1	(The process type involving the largest quantity of the listed substance.)			
		Manufactured			
		Processed			
	Process Type #2	(The process type involving the 2nd largest quantity of the listed substance.)			
		Manufactured			
		Processed			
	Process Type #3	(The process type involving the 3rd largest quantity of the listed substance.)			
		Manufactured			
		Processed			
2.10 <u>CBI</u> [_]	substance that chemical.  Maximum daily	num daily inventory and average monthly inventor was stored on-site during the reporting year in inventory		sted f a bulk kg	
	Average monthly	inventory			
[_]	Mark (X) this	box if you attach a continuation sheet.			

etc.).	iced into	the product (e.g.,	Byproduct,	Concentration	Source of products,
CAS I	No.	Chemical Name	Coproduct or Impurity <sup>1</sup>	(%) (specify ± % precision)	products, Impuritie
· ·	<del></del>			44-44-4	
¹Use ti	ne follow	ving codes to designa	te byproduct, copr	oduct, or impurit	 y:
B = B; C = C	ne follow yproduct oproduct mpurity	ving codes to designa	te byproduct, copr	oduct, or impurit	y:
B = B; C = C	yproduct oproduct	ving codes to designa	te byproduct, copr	oduct, or impurit	y:
B = B; C = C	yproduct oproduct	ving codes to designa	te byproduct, copr	oduct, or impurit	y:
B = B; C = C	yproduct oproduct	ving codes to designa	te byproduct, copr	oduct, or impurit	y:

[\_\_] Mark (X) this box if you attach a continuation sheet.

	ther explanation ar			d.
a.	b. % of Quantity Manufactured, Imported, or		% of Quantity Used Captively	_
Product Types <sup>1</sup>	Processed	<del>-</del> ·	On-Site	Type of End-Users <sup>2</sup>
		<u>-</u>		
		<del>-</del>		
,		_		
 <sup>1</sup> Use the following codes	to designate prod			e/Rubber and additive
A = Solvent			Moldable/Castabl Plasticizer	e/Kubber and additive
<pre>B = Synthetic reactant C = Catalyst/Initiator/</pre>	Accelerator/	N =	Dve/Pigment/Colo	rant/Ink and additive
Sensitizer		0 =	Photographic/Rep	rographic chemical
D = Inhibitor/Stabilize	r/Scavenger/	_	and additives	-/Plating chemicals
Antioxidant		P =	Electrodeposition Fuel and fuel ad	n/Plating chemicals
E = Analytical reagent	Compostront	Q =	Fyplosive chemic	als and additives
<pre>F = Chelator/Coagulant/ G = Cleanser/Detergent/</pre>	Sequestrant Degreaser	S = Fragrance/Flavor chemicals		
H = Lubricant/Friction	modifier/Antiwear	T =	Pollution contro	ol chemicals
agent		U =	Functional fluid	ls and additives
<pre>I = Surfactant/Emulsifi</pre>	er		Metal alloy and	
J = Flame retardant			Rheological modi	
K = Coating/Binder/Adhe				
<sup>2</sup> Use the following codes				
<pre>I = Industrial CM = Commercial</pre>	CS = Cons H = Othe		specify)	
	H = Othe	er (s	specify)	

13 <u>I</u>	Expected Product Types Identify all product types which you expect to manufacture import, or process using the listed substance at any time after your current corporate fiscal year. For each use, specify the quantity you expect to manufacture import, or process for each use as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)					
	a.	b.		c.	d.	
		% of Quantity Manufactured, Imported, or Processed		% of Quantity Used Captively On-Site	Type of End-Users	
	Product Types <sup>1</sup>	Processed		on-site	Type of 2me date	
			-			
			-			
			-			
			- 			
	<sup>1</sup> Use the following code	es to designate prod	uct	types:		
	A = Solvent		L =	Moldable/Castabl	le/Rubber and additi	
	B = Synthetic reactan	t	M =	Plasticizer		
	C = Catalyst/Initiator	r/Accelerator/	N =	Dye/Pigment/Colo	orant/Ink and additi	
	Sensitizer		0 =		prographic chemical	
	D = Inhibitor/Stabilia	zer/Scavenger/	n	and additives	n/Plating chemicals	
	Antioxidant		<pre>P = Electrodeposition/Plating chemicals Q = Fuel and fuel additives</pre>			
	<pre>E = Analytical reagent F = Chelator/Coagulant/Sequestrant</pre>			R = Explosive chemicals and additives		
	G = Cleanser/Detergen		S =	Fragrance/Flavor	chemicals	
	H = Lubricant/Friction	n modifier/Antiwear	T =	Pollution contro	ol chemicals	
	agent			Functional fluid Metal alloy and		
	<pre>I = Surfactant/Emulsi J = Flame retardant</pre>	Iler		Rheological modi		
	<pre>K = Coating/Binder/Ad</pre>	hesive and additives				
	<sup>2</sup> Use the following codes to designate the type of end-users:					
	I = Industrial	CS = Cons				
	CM = Commercial	H = Othe	r (s	pecify)		

a.	b.	C•	d.
Product Type <sup>1</sup> Ph	nal Product's ysical Form <sup>2</sup>	Average % Composition of Listed Substance in Final Product	Type of End-Users
		,	
<sup>1</sup> Use the following codes	to designate pro		
A = Solvent		L = Moldable/Castabl M = Plasticizer	e/Rubber and add
<pre>B = Synthetic reactant C = Catalyst/Initiator/A</pre>	ccelerator/	N = Dye/Pigment/Colo	rant/Ink and add
Sensitizer	ccelerator,	0 = Photographic/Rep	rographic chemic
D = Inhibitor/Stabilizer	/Scavenger/	and additives	
Antioxidant	_	P = Electrodepositio	n/Plating chemic
<pre>E = Analytical reagent</pre>		Q = Fuel and fuel ad	ditives
F = Chelator/Coagulant/S	equestrant	<pre>R = Explosive chemic S = Fragrance/Flavor</pre>	chemicals
<pre>G = Cleanser/Detergent/D H = Lubricant/Friction m</pre>	egreaser	T = Pollution contro	l chemicals
<pre>agent</pre>	OUILIEL/ MILLIWES.	V = Functional fluid	s and additives
I = Surfactant/Emulsifie	r	V = Metal alloy and	additives
I - Flame retardant		W = Rheological modi	fier
K = Coating/Binder/Adhes	ive and additive	es X = Other (specify)	
<sup>2</sup> Use the following codes			cal form:
A = Gas		ystalline solid	
B = Liquid	F3 = Grain F4 - Other	anures her solid	
<pre>C = Aqueous solution D = Paste</pre>	r4 = 0t/ G = Ge		
E = Slurry	<b>-</b>	her (specify)	
F1 = Powder		-	
<sup>3</sup> Use the following codes	to designate the	e type of end-users:	
I = Industrial	CS = Co		
	H = 0t	her (specify)	
CM = Commercial	• •	(	<del></del>

2.15 CBI	Circl liste	e all applicable modes of transportation used to deliver bulk shipments of disubstance to off-site customers.	the					
[_]	Truck		. 1					
<b>'</b> '		ar						
		, Vessel						
	Pipeline 4							
	Other	(specify)						
2.16 CBI	or pr	mer Use Estimate the quantity of the listed substance used by your customers during the reporting year for use under each category duse listed (i-iv).	omers					
[_]	Categ	ory of End Use						
	i.	Industrial Products						
		Chemical or mixture	kg/yr					
		Article						
	ii.	Commercial Products						
	11.	Chemical or mixture	kg/yı					
			kg/yr					
		Article	, <b>~</b> 6/)-					
	iii.	Consumer Products						
		Chemical or mixture	kg/yı					
		Article	kg/yı					
	iv.	<u>Other</u>						
		Distribution (excluding export)	kg/yı					
		Export	kg/yı					
		Quantity of substance consumed as reactant	kg/y					
		Unknown customer uses						
		Ondiorn Costomer asco vvvvvvvvvvvvvvvvv	-					
			·					
	Mark	(X) this box if you attach a continuation sheet.						

SECTION 3 PROCESSOR RAW !	MATERIAL	IDENTIFICATION
---------------------------	----------	----------------

3.01 CBI	Specify the quantity purchased and the average price for each major source of supply listed. Product trace. The average price is the market value of the product substance.	ades are treated as purchases.			
[_]	Source of Supply	Quantity (kg)	Average Price (\$/kg)		
	The listed substance was manufactured on-site.				
	The listed substance was transferred from a different company site.				
•	The listed substance was purchased directly from a manufacturer or importer.				
	The listed substance was purchased from a distributor or repackager.				
	The listed substance was purchased from a mixture producer.				
3.02 CBI	Circle all applicable modes of transportation used to deliver the listed substance to your facility.				
[_]	Truck		1		
	Railcar	• • • • • • • • • • • • • • • • • • • •	ž		
	Barge, Vessel				
	Pipeline		4		
	Plane		5		
	Other (specify)		6		

3.03 CBI	a.	Circle all applicable containers used to transport the listed substance to your facility.
(_)		Bags
		Boxes 2
		Free standing tank cylinders 3
		Tank rail cars 4
		Hopper cars 5
		Tank trucks 6
		Hopper trucks 7
		Drums 8
		Pipeline 9
		Other (specify)
	ъ.	If the listed substance is transported in pressurized tank cylinders, tank rail cars, or tank trucks, state the pressure of the tanks.
		Tank cylinders mmHg
		Tank rail cars mmHg
		Tank trucks mmHg
		Tank trucks

of the mixture, the  average percent comp  amount of mixture pr	If you obtain the listed substance in the form of a mixture, list the trade name of the mixture, the name of its supplier(s) or manufacturer(s), an estimate of the average percent composition by weight of the listed substance in the mixture, and amount of mixture processed during the reporting year.				
Trade Name	Supplier or Manufacturer	Average % Composition by Weight (specify ± % precision)	Amount Processed (kg/yr)		
		•			
	-				

.05 BI	reporting year in the for	listed substance used as a raw material during the m of a class I chemical, class II chemical, or polymer, and by weight, of the listed substance.			
<u>_</u> ]		Quantity Used (kg/yr)	<pre>% Composition by Weight of Listed Sub- stance in Raw Materia (specify ± % precision</pre>		
	Class I chemical				
	Class II chemical	6789 Kg/yn	10 (+5-0)		
	Polymer				
			·		

	SECT	rion 4 Physical/Chemi	CAL PROPERTIES	
	al Instructions:			
4 tha	u are reporting on a mix t are inappropriate to m	ixtures by stating "Na	mixtare.	
	uestions 4.06-4.15, if y e that addresses the inf mile in lieu of answerin	Armation requested, yo	ou may submit a copy or	1, MSDS, or other reasonable
PART	A PHYSICAL/CHEMICAL DAT	'A SUMMARY		
4.01 CBI	substance as it is manu	ifactured, imported, of	or <sup>1</sup> technical grade(s) or processed. Measure the facturing activities, at gin to process the subst	the time you
[_]	NA-MIXTURE	Manufacture	Import	Process
	Technical grade #1	% purity	% purity	% purity
	Technical grade #2	% purity	% purity	% purity
	Technical grade #3	% purity	% purity	% purity
	<sup>1</sup> Major = Greatest quan	tity of listed substan	ce manufactured, importo	ed or processed.
4.02	substance, and for ever an MSDS that you develor version. Indicate whe appropriate response.	ry formulation contain oped and an MSDS devel ther at least one MSDS	afety Data Sheet (MSDS) ing the listed substanc oped by a different sou has been submitted by	rce, submit your circling the
	Indicate whether the M	SDS was developed by y	our company or by a dif	ferent source.
	Another source		•••••••	

[\_] Mark (X) this box if you attach a continuation sheet.

#### DIVISION OF ASHLAND OIL, INC.

P. O. BOX 2219, COLUMBUS, OHIO 43216 . (614) 869-3333

Æshland.

MATERIAL SAFETY

24-HOUR EMERGENCY TELEPHONE (606) 324-1133 DATA SHEET and the state of t PLIOGRIP 6000 000222 THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD) PRODUCT NAME: PLIOGRIP 6000 OS 86 040 4105751-856
DATA SHEET NO: 0171496-003
LATEST REVISION DATE: 03/86-86063
PRODUCT:
INVOICE: REQST
INVOICE DATE: 04/05/86
TO: NORTON COMPANY ATTN: BRUCE C. PARENT, JR. 1 NEW BOND ST. WORCESTER, MA 01666-2698 SECTION I-PRODUCT IDENTIFICATION GENERAL OR GENERIC ID: URETHANE PREPOLYMER DOT HAZARD CLASSIFICATION: NOT APPLICABLE SECTION II-COMPONENTS % (BY WT) PEL TLV INGREDIENT ( 1) ISOCYANATE POLYMER 45-50 ( 2) MG/M3 25-30 TALC CAS #: 14807-96-6 PPM - CEILING 0.02 0.02 TOLUENE DIISOCYANATE CAS #: 26471-62-5 10-15 0.02 PPM - CEILING METHYLENEPHENYLENE ISOCYANATE OLIGOMER CAS #: TM LIST - -0.02 5-10 ( 1): PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL ( 2): AS RESPIRABLE DUST. PEL REPRESENTS A CONVERSION FROM MPPCF TO MG/CUM. SECTION III-PHYSICAL DATA MEASUREMENT REFINEMENT PROPERTY 406.00 207.77 5.00 DEG F 2.) FOR COMPONENT (5-10 BOILING POINT DEG MMHG 0.01 68.00 20.00 FOR COMPONENT( 10-15%)00%) s ( MMHG Deg f Deg c) VAPOR PRESSURE HEAVIER THAN AIR SPECIFIC VAPOR DENSITY 1.320 77.00 DEG F 25.00 DEG C) SPECIFIC GRAVITY 10-15% PERCENT VOLATILES SLOWER THAN ETHER EVAPORATION RATE SECTION IV-FIRE AND EXPLOSION INFORMATION 270.00 DEG F 132.22 DEG C) FLASH POINT(TOC C EXPLOSIVE LIMIT (LOWEST VALUE OF COMPONENT) LOWER -. 9% EXTINGUISHING MEDIA: REGULAR FOAM OR WATER FOG OR CARBON DIOXIDE OR DRY CHEMICAL HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS:, CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, NITROGEN COMPOUNDS, HYDROGEN CYANIDE, CARBON ETC.

FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE AND FULL BODY PROTECTIVE CLOTHING WHEN FIGHTING FIRES.

WATER OR FOAM MAY CAUSE FROTHING WHICH CAN BE VIOLENT AND POSSIBLY ENDANGER THE LIFE OF THE FIREFIGHTER, ESPECIALLY IF SPRAYED INTO CONTAINERS OF HOT, BURNING LIQUID.

SPECIAL FIRE & EXPLOSION HAZARDS: NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: NOT ESTABLISHED FOR PRODUCT, SEE SECTION II AND SECTION

### estioni titlilläi timpatid DIVISION OF ASHLAND OIL, INC.

P. O. BOX 2219, COLUMBUS, OHIO 43216 . (614) 889-3333

Ashlend,

فاستعفره والمراب والمتفيق للهاري أرياني الراري

**MATERIAL SAFETY** 

DATA SHEET 24-HOUR EMERGENCY TELEPHONE (606) 324-1133

(1)

¢00222	PLIOGRIP 6000	PAGE: 2
SECTION V	V-HEALTH HAZARD DATA (CONTINU	ED)
EFFECTS OF ACUTE OVEREXPOSURE:	FOR PRODUCT	
EYES - CAN CAUSE SEVERE IRRITAT SKIN - CAN CAUSE REDDENING, IRR BREATHING - CAN CAUSE NASAL AND COUGHING, HEADACHE, AND SK SWALLOWING - CAN CAUSE GASTROIN	RESPIRATORY IRRITATION, TID	HINESS OF CHEST, ALLERGIC SENSITIZATION.
FIRST AID:		
IF ON SKIN: THOROUGHLY WASH EXP DEVELOPS, GET MEDICAL ATTE CONTAMINATED CLOTHING BEFO	ENTION. REMOVE CONTAMINATED C	R. IF IRRITATION OR RASH Lothing, Launder
IF IN EYES: FLUSH WITH LARGE AN OCCASIONALLY, GET MEDICAL	ATTENTION.	
IF SWALLOWED: DO NOT INDUCE VON THROAT. DILUTE BY GIVING GET MEDICAL ATTENTION IMME	MITING, VOMITING WILL CAUSE WATER, GIVE MILK OF MAGNESI EDIATELY.	FURTHER DAMAGE TO THE A. KEEP WARM, QUIET.
IF BREATHED: IF AFFECTED, REMOVE CONGESTION IN CHEST DEVELO		
PRIMARY ROUTE(S) OF ENTRY:		
INHALATION		
SKIN CONTACT		
EFFECTS OF CHRONIC OVEREXPOSURE	E: FOR PRODUCT	
PROLONGED INHALATION OF TALC DUFIBROSIS.		
OVEREXPOSURE TO THIS MATERIAL ( THE FOLLOWING EFFECTS IN F	OR ITS COMPONENTS) HAS BEEN HUMANS:, RESPIRATORY SENSITIZ	SUGGESTED AS A CAUSE OF ATION, SKIN SENSITIZATION
SE	ECTION VI-REACTIVITY DATA	
HAZARDOUS POLYMERIZATION: CAN C MINERAL ACIDS, AND WATER.	OCCUR AVOID CONTACT WITH	STRONG ALKALIES, STRONG
STABILITY: STABLE		
INCOMPATIBILITY: AVOID CONTACT		
SECTION	I UTT-COTII OD IEAK PROCEDURE	<del></del>
STEPS TO BE TAKEN IN CASE MATER	RIAL IS RELEASED OR SPILLED:	
SMALL SPILL: ABSORB LIQUID ON F ABSORBENT MATERIAL AND TRA	INSFER TO HOUD.	
SPILL TO PREVENT SPREADING	NG PROTECTIVE EQUIPMENT SHOULD SEEN COMPLETED. STOP SPILL G, PUMP LIQUID TO SALVAGE TAN HONIA. REMAINING LIQUID MAY BENT, OR OTHER ABSORBENT MATER:	K. NEUTRALIZE SPILL WITH
WASTE DISPOSAL METHOD:		
ACCORDANCE WITH APPLICABLE	R HOOD BUCT WORK. DISPUSE OF T REGULATIONS.	REMAINING HATERANG IN
LARGE SPILL: DESTROY BY LIQUID REGULATIONS.		
CONTAMINATED ABSORBENT MAY Local, State and Federal R		
	II-PROTECTIVE EQUIPMENT TO BE	
PROPER ENVIRONMENTAL CONTR	OF THE PRODUCT OR ANY COMPONED AIR SUPPLIED RESPIRATOR IS ROL. OSHA REGULATIONS ALSO PED CONDITIONS. (SEE YOUR SAFETIVE CONTROLS SHOULD BE IMPLE	RMIT OTHER NIOSH/MSHA Ty Equipment Supplier).
VENTILATION: PROVIDE SUFFICIENT VENTILATION TO MAINTAIN EX	(POSURE BELOW ILVIS).	
PROTECTIVE GLOVES: WEAR RESISTA	ANT GLOVES SUCH AS:, NATURAL	RUBBER, POLYVINYL ALCOHOL
EYE PROTECTION: CHEMICAL SPLASH ADVISED; HOWEVER, OSHA REC (CONSULT YOUR SAFETY EQUIP	JULA LIUNG ALDO LEKILET GITTEN	OSHA REGULATIONS ARE YPE SAFETY GLASSES.

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

72-62-7920-01

### maillaille eileillear eililipähij DIVISION OF ASHLAND OIL, INC.

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MATERIAL SAFETY DATA SHEET

24-HOUR EMERGENCY TELEPHONE (606) 324-1133

And the second s PAGE: 3 PLIOGRIP 6000 SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THIS DATASHEET MUST BE OBSERVED.

EXPOSURE TO AEROSOLS AND MISTS WHEN MATERIAL IS SPRAYED MAY PRESENT A GREATER RISK OF INJURY FROM COMPONENTS BECAUSE HIGHER CONCENTRATIONS ARE IN THE ATMOSPHERE THAN RESULT FROM VAPOR ALDNE. PROVIDE ADEQUATE VENTILATION AND IF NECESSARY, USE RESPIRATORY PROTECTION.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

4.03	Submit a copy or reasonable facsimile of any hazard information (other than an MSDS) that is provided to your customers/users regarding the listed substance or any formulation containing the listed substance. Indicate whether this information has been submitted by circling the appropriate response.
	Yes
	No

4.04 For each activity that uses the listed substance, circle all the applicable number(s) corresponding to each physical state of the listed substance during the activity listed. Physical states for importing and processing activities are determined at the time you import or begin to process the listed substance. Physical states for manufacturing, storage, disposal and transport activities are determined using the final state of the product.

[\_]
Physical State

		Pny	sical State		
Activity	Solid	Slurry	Liquid	Liquified Gas	Gas
Manufacture	1	2	3	4	5
Import	1	2	3	4	5
Process	1	2	(3)	4	5
Store	1	2	(3)	4	5
Dispose	1	2	3	4	5
Transport	1	2	3	4	5

[ ] Mark (X) this box if you attach a continuation sheet.

<u>BI</u>	percentage distribution of the listed substance by activity. Do not include particles >10 microns in diameter. Measure the physical state and particle sizes for importing and processing activities at the time you import or begin to process the listed substance. Measure the physical state and particle sizes for manufacturing storage, disposal and transport activities using the final state of the product.									
	Physical State		Manufacture	Import	Process	Store	Dispose	Transpor		
	Dust	<1 micron								
		1 to <5 microns								
		5 to <10 microns								
	Powder	<1 micron						•		
		1 to <5 microns								
		5 to <10 microns	·							
	Fiber	<1 micron								
		1 to <5 microns								
		5 to <10 microns						<del></del>		
	Aerosol	<1 micron								
		1 to <5 microns								
		5 to <10 microns								

SECTION	5	ENVIRONMENTAL	FA	Æ	•
---------	---	---------------	----	---	---

5.01	Ind	licate the rate constants for the following transf	formation	proce	sses.		
	a.	Photolysis:					
		Absorption spectrum coefficient (peak)					
		Reaction quantum yield, 6			_ at		nm
		Direct photolysis rate constant, k <sub>p</sub> , at		_1/hr		lat	itude
	b.	Oxidation constants at 25°C:					
		For 10 <sub>2</sub> (singlet oxygen), k <sub>ox</sub>					1/M h
		For RO <sub>2</sub> (peroxy radical), k <sub>ox</sub>					1/M hi
	c.	Five-day biochemical oxygen demand, BOD <sub>5</sub>					mg/l
	d.	Biotransformation rate constant:					
		For bacterial transformation in water, $k_b \dots$					1/hr
		Specify culture					
	e.	Hydrolysis rate constants:					
		For base-promoted process, k <sub>B</sub>					1/M h
		For acid-promoted process, k,					1/M h
		For neutral process, k <sub>N</sub>					1/hr
	f.						
	g.	Other (such as spontaneous degradation)					
	g.	Other (such as spontaneous degradation)					

PART I	3 P.	ARTITION C	OEFFICIENT	rs			
5.02	a.	Specify t	he half-li	ife of the	listed sub	stance in the following	ng media.
		Media		•		Half-life (specif	y units)
		Groundwat	er				
		Atmospher	e				
		Surface w	ater				•
		Soil					
	b.	Identify life grea	the listed	d substanc 24 hours.	e's known t	ransformation products	s that have a half-
		CA	S No.		Name	<pre>Half-life (specify units)</pre>	Media
							in
				<del></del>			in
					•		in
							in
5.03	Spe	ecify the o	octanol-wa	ter parti	tion coeffic	ient, K <sub>ow</sub>	at 25°0
5.04	Spe	ecify the s	soil-water	partition	n coefficien	ıt, K <sub>a</sub>	at 25°C
5.05	Spe	ecify the cefficient,	organic ca K <sub>oc</sub>	rbon-wate	r partition		at 25°0
5.06	Spe	ecify the I	Henry's La	w Constan	t, H		atm-m³/mole
<u> </u>	Ma	rk (X) this	s box if y	rou attach	a continua	tion sheet.	

Bioc	oncentration Factor	or (BCF) of the listed subs e of test used in deriving Species	Tes	
		·		
¹ Use	the following codes to de	signate the type of test:		
F =	Flowthrough Static			

[_]	Market	Quantity Sold or Transferred (kg/yr)	Total Sales Value (\$/yr)
	Retail sales		
	Distribution Wholesalers		
	Distribution Retailers		
	Intra-company transfer		
	Repackagers		
	Mixture producers		
	Article producers		
	Other chemical manufacturers or processors		
	Exporters		
	Other (specify)		
6.05 CBI	Substitutes List all known comm for the listed substance and state feasible substitute is one which i in your current operation, and whi performance in its end uses.	the cost of each substitutes economically and technology	gically feasible to us
(_)	Substitute		Cost (\$/kg)
	I DO NT KNOW	OF AM COMMERCIALLY	
	FEWIBLE SUSTI	·	

SECTION 7	MANUFACTURING	AND	PROCESSING	INFORMATION
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## General Instructions:

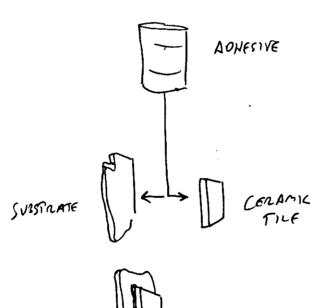
For questions 7.04-7.06, provide a separate response for each process block flow diagram provided in questions 7.01, 7.02, and 7.03. Identify the process type from which the information is extracted.

# PART A MANUFACTURING AND PROCESSING PROCESS TYPE DESCRIPTION

7.01 In accordance with the instructions, provide a process block flow diagram showing the major (greatest volume) process type involving the listed substance.

<u>CBI</u>

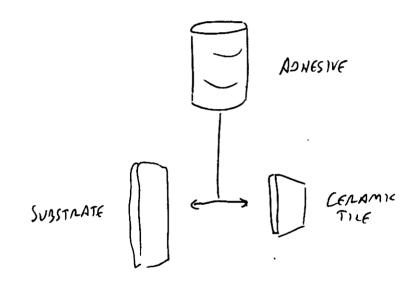
Process type ..... CERAMIC ARMOR BUNDING



TILE BUNDED

TO SUBSTRATE

	which, if combined, would treated before emission from one process type,	and emission points to distance at least 90 per into the environment. Provide a process block will such emissions are	rcent of all If all suc flow diagon released for	lock flow diagram showing the listed substance and ll facility emissions if roch emissions are released ram using the instructions rom more than one process process type as a separate	not s
CBI	Process type	CERAMIL	Arnor	BUNDING	



ADHESIVE POLYMERIZES
NO Emission of TDI
TO ATMOSPHERE

<sup>[</sup>\_] Mark (X) this box if you attach a continuation sheet.

<u>CBI</u>	than one proce process type.	flow diagram(s). If a ss type, photocopy thi	s question and comp	lete it <b>se</b> parate	ly for each
[_]	Process type .				
	Unit Operation ID Number	Typical Equipment Type	Operating Temperature Range (°C)	Operating Pressure Range (mm Hg)	Vessel Compositio
				·	
			•		

	question and comple	diagram is provided for mo ete it separately for each	process type.	
BI				
_1	Process type			
	Process Stream ID Code	Process Stream Description	Physical State	Stream Flow (kg/yr
			-	
			_	
	GC = Gas (condens GU = Gas (unconde SO = Solid SY = Sludge or sl AL = Aqueous liqu	id	e and pressure) ure and pressure)	

<u>_</u> ]	Process type				
	a.	b.	c.	d.	e.
	Process Stream ID Code	Known Compounds <sup>1</sup>	Concen- trations <sup>2,3</sup> (% or ppm)	Other Expected Compounds	Estimated Concentration (% or ppm)
	continued be	olov			
.00	Continued by	E10*			

that are present in each Assign an additive packa column b. (Refer to the	e introduced into a process str additive package, and the cond ge number to each additive pack instructions for further expla r the definition of additive pa	entration of each com age and list this num mation and an example
Additive Package Number	Components of Additive Package	Concentration (% or ppm)
1		
2		
3		
4		
	· · · · · · · · · · · · · · · · · · ·	
5		
	·	<del></del>
<sup>2</sup> Use the following codes	to designate how the concentrat	ion was determined:
A = Analytical result E = Engineering judgemen	t/calculation	
<sup>3</sup> Use the following codes	to designate how the concentrat	ion was measured:
<pre>V = Volume V = Weight</pre>		

PART	A RESIDUAL TREATMENT PROCESS DESCRIPTION
8.01 <u>CBI</u>	In accordance with the instructions, provide a residual treatment block flow diagram which describes the treatment process used for residuals identified in question 7.01.
[_]	Process type
	·
[_]	Mark (X) this box if you attach a continuation sheet.

3.05 BI	diagram	(s). If a r	esidual trea	tment block II estion and cor	in your residua low diagram is mplete it sepa r explanation a	rately for ea	ch process
	Process	type	• • •	<u> </u>			
	a.	b.	c. Physical State	d.	e. Concentra-	f. Other	g. Estimated Concen-
	Stream ID Code	Type of Hazardous Vaste	of Residual <sup>2</sup>	Known Compounds <sup>3</sup>	tions (% or ppm)	Expected Compounds	trations (% or ppm)
 8.05	continu	ued below					

## 8.05 (continued) <sup>1</sup>Use the following codes to designate the type of hazardous waste: I = Ignitable C = Corrosive R = Reactive E = EP toxicT = ToxicH = Acutely hazardous <sup>2</sup>Use the following codes to designate the physical state of the residual: GC = Gas (condensible at ambient temperature and pressure) GU = Gas (uncondensible at ambient temperature and pressure) S0 = SolidSY = Sludge or slurry AL = Aqueous liquid OL = Organic liquid IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene) 8.05 continued below

[ ] Mark (X) this box if you attach a continuation sheet.

3.05	(continued)						
	that are present in each	age introduced into a process strain additive package, and the concage number to each additive package instructions for further explain the definition of additive packers.	tage and list this number anation and an example.				
	Additive Package Number	Components of Additive Package	Concentrations (% or ppm)				
	1						
	2						
	3						
	4						
	5						
	4 full with sodes to designate how the concentration was determined:						
	Use the following codes to designate how the concentration was determined:  A = Analytical result E = Engineering judgement/calculation						
B.05	continued below						
		attach a continuation sheet.					

. .

codes to designate how the concer	ntration was measured:
tical test methods used and their code to each test method used and	detection limits in the tables those codes in column of
Method	Detection (± ug/
•	
•	
	tical test methods used and their code to each test method used and

CBI								
[_]	Process	type	• • •					
	a.	b.	c.	d.	е	•	f. Costs for	g.
	Stream ID Code	Waste Description Code	Management Method Code <sup>2</sup>	Residual Quantities (kg/yr)	of Resi	gement dual (%) Off-Site	Off-Site Management (per kg)	Changes in Management Methods
		•						
					,			
		ne codes prov ne codes prov						

[_]		Combustion Chamber Temperature (°C)		Temp	tion of erature	In Co	Residence Time In Combustion Chamber (seconds)	
	Incinerator	Primary	Secondary	Primary	Secondary	Primary	Secondary	
	1							
	2							
	3							
	Indicate	e if Office ling the app	of Solid Was propriate res	te survey ha	s been submit	tted in lieu	of respons	
	Yes		• • • • • • • • • • • • • • • • • • • •		•••••	• • • • • • • • • •		
	No							
8.23 <u>CBI</u> [_]	Complete the are used on-s treatment blo	ite to burn	the residual: gram(s). Air P	s identified	st (by capacit	cess block o Type Emissio	r residual s of ns Data	
CBI	are used on-s	ite to burn	the residual: gram(s). Air P	s identified	st (by capacit	cess block o Type Emissio	s of	
CBI	Incinerator  1 2 Indicat by circ	e if Office	of Solid Was	ollution l Device  te survey haponse.	as been submi	Type Emissio Avai	s of ns Data lable  of respons	
CBI	Incinerator  1 2 3 Indicat by circ	e if Office	the residuals ram(s).  Air P Contro  of Solid Was propriate res	ollution l Device  te survey haponse.	as been submi	Type Emissio Avai	s of ns Data lable  of respons	
CBI	Incinerator  1 2 3 Indicat by circ	e if Office	of Solid Was	ollution l Device  te survey haponse.	as been submi	Type Emissio Avai	s of ns Data lable  of respons	
CBI	Incinerator  1 2 3 Indicat by circ	e if Office	of Solid Was	te survey haponse.	as been submi	Type Emissio Avai	s of ns Data lable  of respons	

## PART A EMPLOYMENT AND POTENTIAL EXPOSURE PROFILE

9.01 Mark (X) the appropriate column to indicate whether your company maintains records on the following data elements for hourly and salaried workers. Specify for each data element the year in which you began maintaining records and the number of years the records for that data element are maintained. (Refer to the instructions for further explanation and an example.)

Data Element	Hourly Vorkers	intained for Salaried Workers	Data Collection Began	Years Records Are Maintained
Date of hire		<u>×</u>	PRIOR TO 1900	30 YRS AFTER SEPARATION
Age at hire	χ	χ	PRIOR TO 1900	30 YAS AFTER SPARATION
Work history of individual before employment at your facility			PRIOR TO 1900	30 YES AFTER SEPARATION
Sex		<u> </u>	PRIVE TU 1900	30 yes AFTER SEPARATION
Race				
Job titles	<u>×</u>	×	PRIOR TO 1900	30 YRS AFTER SEARCHTION
Start date for each job title			PRIORTU 1900 MAJORJUS UHNGE	30 yes AFTER SEPARATION
End date for each job title			PRIDA TO 1900	30 yes AFFR SFRARATION
Work area industrial hygiene monitoring data	<u> </u>		c. 1930	AERMANGUT
Personal employee monitoring data	$\overline{}$		c. 1930	PERMANENT
Employee medical history			PRIOR TV 1900	30 YAS AFTER SPANOTIN
Employee smoking history		·		30 YAS FFTEN SPENDEN
Accident history	<u>×</u> _	$\frac{\times}{}$	PRIOR TO 1900	30 YRS AFTER SEPARATION
Retirement date	_ >_	<del></del>	PR 102 TO 1900	
Termination date	<u> </u>	<u>×</u>	PRIOR TO 1900	
Vital status of retirees				
Cause of death data	×	Χ	c. 1950	

<sup>[ ]</sup> Mark (X) this box if you attach a continuation sheet.

2	In accordance with the in which you engage.	instructions, complete	the following ta	ible for e	ach activity
]	<b>a.</b>	b.	c.	d.	e.
	Activity	Process Category	Yearly Quantity (kg)	Total Vorkers	Total Worker-Hou
	Manufacture of the listed substance	Enclosed			
	listed substance	Controlled Release	***************************************		
		0pen			
	On-site use as	Enclosed			
	reactant	Controlled Release			
		0pen			
	On-site use as	Enclosed			4
	nonreactant	Controlled Release			
		0pen		****	
	On-site preparation	Enclosed		<del></del>	
	of products	Controlled Release			
		0pen	629	4	8320

.03 Provide a descriptive encompasses workers to listed substance.  BI	e job title for each labor category at your facility that who may potentially come in contact with or be exposed to the
_1	
Labor Category	Descriptive Job Title
A	FOREMAN TECHNECIAN
В	TECHNECIAN
c	
D	
E	
F	
G	
H	
I	
J	

9.04	In accordance with the instructions, provide your process block flow diagram(s) and indicate associated work areas.
CBI	
[_]	Process type CFRAMIL ARMOR SUNDING
	SUBSTRATE TILE  GLUEING TECHNECIAN

<u>BI</u> ] P	rocess type	LERAMIL AMOR BONDING
_		Description of Work Areas and Worker Activities
<u>v</u>	ork Area ID	GLUFING ANGA
	1 2	3-20/1/10
	3	
	4	
	5	
	6	
	·	
	8	
	9	
	10	

	come in cont	category at you tact with or be it separately	exposed to the	e liste	d substance.	Photocopy th	entially is questi
}	Process type	<b></b>	CERAMIC	pr	nor Bursin	٠,	
	Work area						
	Labor Category	Number of Workers Exposed	Mode of Exposu (e.g., dir skin conta	ect	Physical State of Listed Substance	Average Length of Exposure Per Day <sup>2</sup>	Number Days po Year Expose
	4		SKIN		<u> </u>	E	260
	<u> </u>		Skin		OL	E	260
					***************************************		·
	***		~~			<u></u>	
		*****					
				<del></del>			<del></del>
		-	**************************************				
	the point o	llowing codes to of exposure:	_				ibstance
	tempe	(condensible at erature and pre	essure)	AL =	: Sludge or sl : Aqueous liqu	uid	
	tempe	(uncondensible erature and pre	essure;		Organic lique Immiscible l	liquid	
	inclu SO = Solid	udes fumes, v <b>a</b> r 1	oors, etc.)		(specify pha 90% water, 1		
	<sup>2</sup> Use the fo	llowing codes t	o designate av	erage ]	ength of expo	sure per day:	
		utes or less r than 15 minut	es, but not	D =	Greater than exceeding 4 h	2 hours, but	not
	exceed: C = Greate:	ing 1 hour r than one hour ing 2 hours				4 hours, but nours	not

BI			10-	
_1	Process type	CEPLAMIC	Monor	BONDING
	Work area			
	Labor Category	8-hour TWA Exposure (ppm, mg/m <sup>3</sup> , other-	e Level specify)	15-Minute Peak Exposure Leve (ppm, mg/m <sup>3</sup> , other-specify)
			•	

]			Testing	Number of		Analyzed	Number of
	Sample/Test	Work Area ID	Frequency	Samples (per test)	Who Samples 1	In-House (Y/N)	Years Recor
	Personal breathing zone						
	General work area (air)						•
	Wipe samples						
	Adhesive patches	-					
	Blood samples						
	Urine samples						
	Respiratory samples						
	Allergy tests						
	Other (specify)						
	Other (specify)						
	Other (specify)						
							_
	<sup>1</sup> Use the following of A = Plant industria B = Insurance carric C = OSHA consultant D = Other (specify)	al hygien: ler t	ist	o takes the	monitori	ng samples:	i

_]	Sample Type		Sampling and Analyt	ical Methodolo	<u>egy</u>		
.10	If you conduct person specify the following	nal and/or ambier g information for	nt air monitoring fo r each equipment typ	r the listed se used.	substance,		
<u>BI</u>				Averaging			
	Equipment Type <sup>1</sup>	Detection Limit	Manufacturer Manufacturer	Time (hr)	Model Numbe		
					-		
	<sup>1</sup> Use the following co	odes to designate	e personal air monit	oring equipmen	nt types:		
	A = Passive dosimete B = Detector tube C = Charcoal filtra D = Other (specify)	tion tube with pu	nwb				
	Use the following co		e ambient air monito	ring equipment	types:		
	E = Stationary monic F = Stationary monic G = Stationary monic H = Mobile monitorin I = Other (specify)	tors located with tors located at p	nin facility plant boundary		•		
	<sup>2</sup> Use the following codes to designate detection limit units:						
	A = ppm B = Fibers/cubic centimeter (f/c) C = Micrograms/cubic meter (μ/m³)						

<u>BI</u>	Mass Description	Prequency (weekly, monthly, yearly, etc.)
<u>_</u> 1	Test Description	(weekly, monthly, yearly, etc.)
	·	

9.12 CBI	Describe the engineering controls that you use to reduce or eliminate worker exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.								
	Process type								
·	Work area								
		Used	Year	Upgraded	Year				
	Engineering Controls	(Y/N)	Installed	(Y/N)	<u>Upgraded</u>				
	Ventilation:								
	Local exhaust								
	General dilution								
	Other (specify)								
	Vessel emission controls								
	Mechanical loading or packaging equipment								
	Other (specify)								
				<del></del>					

Process	type	
Work ar	ea	••••
	Equipment or Process Modification	Reduction in Wor Exposure Per Year
	•	
	•	
		•

		l protective and safety equipment that your workers wear or use order to reduce or eliminate their exposure to the listed y this question and complete it separately for each process types.
31		CORAMIL AMOR BUNDING
_]	Process type	. CERAMIC ARMOR BUNDING
	Work area	
		Equipment Types  Respirators  Safety goggles/glasses  Face shields  Coveralls  Bib aprons  Chemical-resistant gloves  Other (specify)

CBI	Process type	e	CERAMIC	Arno	Z BUNDIN	G
· J	Work Area	Respirator Type	Average Usage		Type of Fit Test <sup>2</sup>	Frequency o Fit Tests (per year)
	<u>B</u> N	URTY 7500 EFACE		<del></del>	<u>QL</u>	1 TIME
	C = Monthl D = Once a E = Other	year	gnate the type	of fit tes	t:	
		tative	•			
	QL = Quali QT = Quant	itative				
		itative				
		itative				•

RT E WORK PRACTICES				
19 Describe all of the work pre- eliminate worker exposure authorized workers, mark are monitoring practices, proving question and complete it seems.	to the listed sur reas with warning ide worker train eparately for ea	stance (e.g., g signs, insur- ing programs, ch process typ	re worker det etc.). Phot pe and work a	ection and ocopy this
Process type	CERAMIE	Arnek	BUN OING	
Work area			• •	
WELL VESTILL CONTROLL, GLOVE	ATED WEN	DREA, L	IMITED !	SKIN
CANTRET, GLOVE	65 + NRONS	AVAILABLE	. USG ENLO	UNALED
( ) ( ) ( )			,	
separately for each proces  Process type  Work area	CERAMIC	: Agnar	BUND) NG	
Housekeeping Tasks	Less Than Once Per Day	1-2 Times Per Day	3-4 Times Per Day	More Than 4 Times Per Day
Sweeping	$\overline{}$			
Vacuuming	×			
Water flushing of floors				
Other (specify)	X			

9.21	Do you have a written medical action plan for responding to routine or emergency exposure to the listed substance?					
	Routine exposure					
	Yes 1					
	No					
	Emergency exposure					
	Yes 1					
	No					
	If yes, where are copies of the plan maintained?					
	Routine exposure:					
	Emergency exposure:					
9.22	Do you have a written leak and spill cleanup plan that addresses the listed substance? Circle the appropriate response.					
	Yes					
	No					
	If yes, where are copies of the plan maintained?					
	Has this plan been coordinated with state or local government response organizations Circle the appropriate response.					
	Yes					
	No					
9.23	Who is responsible for monitoring worker safety at your facility? Circle the appropriate response.					
	Plant safety specialist					
	Insurance carrier					
	OSHA consultant					
	Other (specify)					

## SECTION 10 ENVIRONMENTAL RELEASE

## General Instructions:

Complete Part E (questions 10.23-10.35) for each non-routine release involving the listed substance that occurred during the reporting year. Report on all releases that are equal to or greater than the listed substance's reportable quantity value, RQ, unless the release is federally permitted as defined in 42 U.S.C. 9601, or is specifically excluded under the definition of release as defined in 40 CFR 302.3(22). Reportable quantities are codified in 40 CFR Part 302. If the listed substance is not a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and, thus, does not have an RO, then report releases that exceed 2,270 kg. If such a substance however, is designated as a CERCLA hazardous substance, then report those releases that are equal to or greater than the RQ. The facility may have answered these questions or similar questions under the Agency's Accidental Release Information Program and may already have this information readily available. Assign a number to each release and use this number throughout this part to identify the release. Releases over more than a 24-hour period are not single releases, i.e., the release of a chemical substance equal to or greater than an RQ must be reported as a separate release for each 24-hour period the release exceeds the RO.

For questions 10.25-10.35, answer the questions for each release identified in question 10.23. Photocopy these questions and complete them separately for each release.

10.01	Where is your facility located? Circle all appropriate responses.
CBI	
[_]	Industrial area
	Urban area 2
	Residential area 3
	Agricultural area 4
	Rural area 5
	Adjacent to a park or a recreational area
	Within 1 mile of a navigable waterway
	Within 1 mile of a school, university, hospital, or nursing home facility
	Within 1 mile of a non-navigable waterway 9
	Other (specify)10

10.02	is located) in terms of latitude a (UTM) coordinates.	ind longitude or Uni	versal Transverse	Mercader
	Latitude	• • • • • • • • • • • • • • • • • • • •	<u>042 · 018</u>	_, <u>014</u> ,
	Longitude		071.048	.001
	UTM coordinates Zone			
10.03	If you monitor meteorological cond the following information.	litions in the vicin	ity of your facili	ty, provide
	Average annual precipitation			_ inches/year
	Predominant wind direction		-	-
10.04	Indicate the depth to groundwater	below your facility	•	
	Depth to groundwater	•••••	-	_ meters
10.05 CBI	For each on-site activity listed, listed substance to the environment Y, N, and NA.)	indicate (Y/N/NA) a	ll routine release	s of the
	For each on-site activity listed, listed substance to the environmen Y, N, and NA.)	indicate (Y/N/NA) a t. (Refer to the i Env	ll routine release nstructions for a ironmental Release	s of the definition of
<u>CBI</u>	For each on-site activity listed, listed substance to the environmen Y, N, and NA.)  On-Site Activity	indicate (Y/N/NA) a it. (Refer to the i	ll routine release nstructions for a	s of the definition of
<u>CBI</u>	For each on-site activity listed, listed substance to the environmenty, N, and NA.)  On-Site Activity  Manufacturing	indicate (Y/N/NA) ast. (Refer to the i  Env Air	ll routine release nstructions for a ironmental Release Water	s of the definition of Land
<u>CBI</u>	For each on-site activity listed, listed substance to the environment Y, N, and NA.)  On-Site Activity  Manufacturing  Importing	indicate (Y/N/NA) at. (Refer to the i	ll routine release nstructions for a ironmental Release Water	s of the definition of
<u>CBI</u>	For each on-site activity listed, listed substance to the environment Y, N, and NA.)  On-Site Activity  Manufacturing  Importing  Processing	indicate (Y/N/NA) ast. (Refer to the i  Env Air	ll routine release nstructions for a ironmental Release Water	s of the definition of
<u>CBI</u>	For each on-site activity listed, listed substance to the environment Y, N, and NA.)  On-Site Activity  Manufacturing  Importing  Processing  Otherwise used	indicate (Y/N/NA) ast. (Refer to the i  Env Air	ll routine release nstructions for a ironmental Release Water	s of the definition of
<u>CBI</u>	For each on-site activity listed, listed substance to the environment Y, N, and NA.)  On-Site Activity  Manufacturing  Importing  Processing  Otherwise used  Product or residual storage	indicate (Y/N/NA) ast. (Refer to the i  Env Air	ll routine release nstructions for a ironmental Release Water	s of the definition of
<u>CBI</u>	For each on-site activity listed, listed substance to the environment Y, N, and NA.)  On-Site Activity  Manufacturing  Importing  Processing  Otherwise used  Product or residual storage  Disposal	indicate (Y/N/NA) and the indicate (Y/N/NA)	ll routine release nstructions for a  ironmental Release Water  N	s of the definition of
<u>CBI</u>	For each on-site activity listed, listed substance to the environment Y, N, and NA.)  On-Site Activity  Manufacturing  Importing  Processing  Otherwise used  Product or residual storage	indicate (Y/N/NA) and the indicate (Y/N/NA)	ll routine release nstructions for a  ironmental Release Water  N	s of the definition of
<u>CBI</u>	For each on-site activity listed, listed substance to the environment Y, N, and NA.)  On-Site Activity  Manufacturing  Importing  Processing  Otherwise used  Product or residual storage  Disposal	indicate (Y/N/NA) and the indicate (Y/N/NA)	ll routine release nstructions for a  ironmental Release Water  N	s of the definition of
<u>CBI</u>	For each on-site activity listed, listed substance to the environment Y, N, and NA.)  On-Site Activity  Manufacturing  Importing  Processing  Otherwise used  Product or residual storage  Disposal	indicate (Y/N/NA) and the indicate (Y/N/NA)	ll routine release nstructions for a  ironmental Release Water  N	s of the definition of

I	of precision for each item. (Refer to the instruction example.)		er expression a
_ _]	Quantity discharged to the air	$\circ$	kg/yr ±
	Quantity discharged in wastewaters	0	kg/yr ±
	Quantity managed as other waste in on-site treatment, storage, or disposal units	0	kg/yr ±
	Quantity managed as other waste in off-site treatment, storage, or disposal units	0	kg/yr <u>+</u>

10.08 CBI	for each process stream process block or residua	hnologies used to minimize release containing the listed substance as l treatment block flow diagram(s). ly for each process type.	igentified in your
<u> </u>	Process type		
	Stream ID Code	Control Technology	Percent Efficiency

substance in terms of a  CBI residual treatment block	- Identify each emission point source containing the listed Stream ID Code as identified in your process block or flow diagram(s), and provide a description of each point raw material and product storage vents, or fugitive emission leaks). Photocopy this question and complete it separately
Process type	
Point SourceID Code	Description of Emission Point Source
	*

 $\prod$ 

Mark

 $\mathfrak{S}$ 

this

 $<sup>^4</sup>$ Average Emission Factor — Provide estimated ( $\pm$  25 percent) emission factor (kg of emission per kg of production of listed substance)

_]	Point Source ID Code	Stack Height(m)		Exhaust Temperature (°C)	Emission Exit Velocity (m/sec)	Building Height(m)	Building Vidth(m)	Ven Typ
							***************************************	
							<u> </u>	
					•			
	<sup>2</sup> Width of	following of	or adjacent or adjacent i		type:			
							•	

0.12 BI		in particulate form, indicate the particle size ID Code identified in question 10.09. e it separately for each emission point source
<u>_</u> 1	Point source ID code	
	Size Range (microns)	Mass Fraction (% ± % precision)
	< 1	
	≥ 1 to < 10	
	≥ 10 to < 30	
	≥ 30 to < 50	
	≥ 50 to < 100	
	≥ 100 to < 500	
	≥ 500	
		Total = 100%

10.13	Equipment Leaks Complet types listed which are exp according to the specified the component. Do this fo residual treatment block f not exposed to the listed process, give an overall p exposed to the listed subs for each process type.	osed to the l weight perce r each proces low diagram(s substance. I ercentage of	isted substant of the stype id (). Do not this is time per	bstance ase listed sedentified of includes a batch year tha	nd which of substance in your per equipment or interest the proof	are in se passing process but types mittently cess type	rvice through lock or that are operated is
[-]	Process type						
<b>`</b> '	Percentage of time per yea	r that the li	sted sub	stance is	exposed	to this p	rocess
	type	• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • • •	· · · · · · · · <u> </u>	
		Number	of Compos of Liste	nents in : d Substan	Service by	y Weight cess Stre	am
	m. I	Less					Greater than 99
	Equipment Type	than 5%	3-10%	11-23%	20-13%	10-33%	Chan 33
	Pump seals <sup>1</sup>						
	Packed						
	Mechanical						
	Double mechanical <sup>2</sup>				<del></del>		
	Compressor seals <sup>1</sup>		<del></del>		<del></del>		
	Flanges				**********		
	Valves						
	Gas <sup>3</sup>	-					
	Liquid						
	Pressure relief devices (Gas or vapor only)						
	Sample connections						
	Gas						-
	Liquid						
	Open-ended lines <sup>5</sup> (e.g., purge, vent)						
	Gas						
	Liquid						
	List the number of pump a compressors	nd compressor	seals,	rather the	an the nu	mber of p	umps or
10.13	continued on next page	•					

10.13	(continued)			
	<sup>2</sup> If double mechanical seal greater than the pump stu will detect failure of th with a "B" and/or an "S",	offing box pressure a ne seal system, the b	nd/or equipped wi	th a sensor (S) that
	<sup>3</sup> Conditions existing in th	ne valve during norma	l operation	
	<sup>4</sup> Report all pressure relie control devices	ef devices in service	, including those	equipped with
	<sup>5</sup> Lines closed during norma operations	al operation that wou	ld be used during	maintenance
10.14 CBI	Pressure Relief Devices wi pressure relief devices in devices in service are con enter "None" under column	dentified in 10.13 to atrolled. If a press	indicate which p	ressure relief
	. a.	b	c.	d.
	Number of Pressure Relief Devices	Percent Chemical in Vessel	Control Device	Estimated Control Efficiency <sup>2</sup>
		•		
				,
		-		
	1 Refer to the table in quest heading entitled "Number of Substance" (e.g., <5%, 5-12 The EPA assigns a control with rupture discs under 1	of Components in Serv 10%, 11-25%, etc.) efficiency of 100 pe	vice by Weight Per ercent for equipme	cent of Listed  nt leaks controlled
	efficiency of 98 percent seconditions	for emissions routed	to a flare under	normal operating
<u> </u>	Mark (X) this box if you a	ttach a continuation	sheet.	

10.15 CBI	Equipment Leak Detec place, complete the procedures. Photoco type.	following table re	garding thos	se leak deto	ection and re	epair
	Process type					
[_]	Equipment Type	Leak Detection  Concentration (ppm or mg/m³)  Measured at  Inches  from Source	Detection Device	of Leak Detection	Repairs Initiated (days after detection)	Repairs Completed (days afte initiated)
	Pump seals Packed Mechanical Double mechanical Compressor seals Flanges Valves Gas Liquid Pressure relief devices (gas or vapor only) Sample connections Gas Liquid Open-ended lines Gas Liquid					
	1 Use the following c POVA = Portable org FPM = Fixed point m O = Other (specify)  Mark (X) this box if	anic vapor analyze onitoring	detection d	evice:		

<u>CBI</u>	VI IG		atment block						Operat-	-				
( <u> </u>	Vessel Type		Composition of Stored Materials <sup>3</sup>	Throughput (liters per year)		Vessel Filling Duration _(min)			Volume	Vessel Emission Controls	Design Flow Rate <sup>5</sup>		Control Efficiency (%)	Basis for Estimate
	<del></del>			- · · · · · · · · · · · · · · · · · · ·										
											-		-	
	F CIP NCIF EFR P H U	= Fixed r = Contact = Noncont = Externa = Pressur = Horizon = Undergr	internal flact internal floating revessel (in tal cound)	oating roof floating ro oof dicate press	of ure ratin	ng)	MS1 MS2 MS2 LM1 LM2 LM6 VM1 VM2 VM2	= Med = Sho R = Rin = Lic = Rin I = Wed = Vap = Rin I = Vap = Rin I = Wed	chanical pe-mounte puid-mounte ather sh por mounte ather sh	shoe, pried seconda d, seconda nted resil d shield ield ited resili d seconda ield	imary ary lient fi lent fi	lled seal led seal,	primary	s:
		_	nt percent of mating roofs	the listed	substance	e. Includ	e the tota	ıl volat	tile org	anic conte	ent in p	arenthesi	S	
	_		rate the en	ission contr	ol devic	e vas desi	gned to∙ha	ındle (s	specify	flow rate	units)			
	_	•	ring codes to				-				,			
	C =	Calculation Sampling	•	J					-					

	D	ate	Time	Date	Time
Release	St	arted	(am/pm)	Stopped	(am/p
		<del></del>			
2	·				
3					
4	*			_	
5	***************************************				
6					<del> </del>
Release	the weather con Wind Speed (km/hr)	ditions at the Wind Direction	Humidity (%)	Temperature (°C)	
Release	Wind Speed	Wind	Humidity	Temperature	
<u>Release</u> 12	Wind Speed	Wind	Humidity	Temperature	
Release123	Wind Speed	Wind	Humidity	Temperature	
Release1234	Wind Speed	Wind	Humidity	Temperature	
Release123	Wind Speed	Wind	Humidity	Temperature	Precipita (Y/N)